REMARKS

1. Election/Restriction:

The Examiner says that the PTO hadn't contended that Viljakainen anticipate claim 1, merely that there was a lack of a "special technical feature". It is true that a claim which is not anticipated can still be obvious and thereby lack a special technical feature. However, all that the restriction asserted concerning Viljakainen, as basis for holding such a lack, was that the reference "discloses multiple species of bacteria that are capable of malolactic fermentation". However, that was only one of the requirements of claim 1. It does not address, for example, the negative limitation vis-a-vis lactic acid or the survival rate limitations, neither of which are inherent in being capable of malolactic fermentation.

The Examiner did not specify whether the holding was based on anticipation or obviousness. If the original holding were based on obviousness, the Examiner should have explained how Viljakainen suggested the non-anticipated features. Applicants pointed out why Viljakainen did not anticipate, and it is thus incumbent on the examiner to justify the a posteriori lack of unity holding by an obviousness argument.

Yet no obviousness rejection is made. Rather, the Examiner's position is simply that the only "feature" linking all groups is the feature "disclosed" (anticipated?) By Viljakainen.

All claims are dependent, directly or indirectly, on claim 1[1]. Hence all claims are linked by all the features of claim 1, not just the malolactic fermentation feature ("straw man").

Unity can be established by "one or more of the same or corresponding 'special technical features'". PCT Admin. Instructions, Annex B (b).

It follows that unity exists and the withdrawn claims should be rejoined.

2. Drawings:

The references on p.12, l.24 to p.13, l.8 have been corrected from "tables 1-4" to "figures 11-14".

3. Specification:

The only trademark identified is TWEEN™80, which can be found on:

page 30, line 13

page 42, line 27

page 43, line 8

page 44, line 17

page 45, line 9.

The specification has been amended.

4. Claim objections:

We have added a period at the end of claim 1.

[1] Claim 31 is dependent on cancelled claim 30, which had been dependent, indirectly, on claim 1.

5. Written description:

5.1. Claims 1-2, 4, 6-9, 11, 13-15, 43, 45 and 48-49 stand rejected under 112 1 for allegedly failing to comply with the written description requirement.

5.1.1. The first issue appears to be whether DSM 15569, 15570 and 15571 satisfy the limitations of claim 1. The examiner states

> It is noted that, while DSM 15569, 15570, and 15571 are described as meeting the limitations of the claims, they do not actually appear to do so. Example 2 shows that unless DSM 15571 is cultured under specific conditions prior to freezing, it will not have the required survival rate. While example 4 shows that DSM 15569, 15570, and 15571 are capable of the required survival rate, based on the results of example 2, one would expect that specific conditions prior to freezing would be required for each of these organisms. However, the claims do not include any of these growth conditions, and the organism itself does not have the required characteristics.

The claims are directed to the organisms, and not to the method of cultivating the organisms.

Example 2 shows that under some conditions, the organism will have the stated survival rate. It is quite common in microbiology patent claims to recite that an organism is capable of a particular level of performance. Whether it actually achieves that performance is almost certainly dependent on the growth conditions. However, in a claim

directed to the organism, it should not be necessary to specify those growth conditions (unless that is necessary to distinguish it from a prior art organism which achieves that performance under less desirable growth conditions).

Reciting the specific growth conditions in the claims would make it much more difficult to prove infringement, because of the difficulties of ascertaining the growth conditions used by a potential infringer.

We have amended claim 1 to require that the organism is capable of adaptation to the recited growth rates under "suitable growth conditions". Hence, it is only necessary to show that growth conditions exist in which DSM 15569, 15570 and 15571 are adapted to the recited growth rate, which is already conceded by the examiner.

New claims 101-103 are based on withdrawn claims 55, 58 and 59, and further specify the adaptation conditions.

5.1.2. The second issue is whether these three species, all O. oeni, are representative of the claimed genus.

As examined, claim 1 covered any microbial organism with the recited characteristics. Claim 2 was limited to the species Oenococcus oeni. Claim 15 was limited to the three deposited O. oeni strains. While not then claimed, the specification discloses that malalactic fermentation "results from the catabolic activity of various lactic acid bacteria, including species belonging to the genera of Lactobacillus, Pediococcus and oenococcus", (P1, L25-27). See also P19, L31. Two additional strains are cited at P37, L29.

Amended claim 1 is limited to these three genera. We respectfully submit that since organisms of all three genera are capable of malolactic fermentation, there is prima facie basis for expecting that it is possible to isolate other strains of these genera which enjoy the claimed characteristics.

The Examiner cites Eli Lilly, Amgen and Fiddes as basis for requiring disclosure of the sequence of a nucleic acid or protein. These cases all related to claims to nucleic acids or proteins. The present claims are to organisms of a class which performs malolactic fermentation. The cases on written description do not require that "every invention must be described in the same way". The Examiner is surely aware that the PTO has been granting patents on new microorganisms since well before DNA sequencing methods were developed, and hence before there was knowledge of the specific sequence-activity correlations.

5.2. Claim 1 requires an organism which "when placed in a medium containing a predetermined amount of citric acid is only capable of degrading at the most 80% of said citric acid". The Examiner asserts that if the predetermined amount of citric acid was extremely high it is likely that the organism would be unable to degrade more than 80%, but if the amount were very low, the organism would be able to degrade all of it. We have amended claim 1 by inserting the broadest preferred range of citric acid, 1-5000 mg/L, disclosed in the specification (p.16, l.29).

Claim 8 is rejected on the parallel grounds regarding "capable of degrading at least 90% of said malic acid". (P7 ¶1). We amended claim 8 by inserting the broadest preferred range of malic acid, 1-50 g/L, disclosed in the specification (p.16, l. 27).

5.3. Claim 13 has received a specific rejection (P7 ¶2). The Examiner is of the opinion that the specification lacks any showing that any specific strain is resistant to bacteriophages and that the skilled person would not expect the organism disclosed in the spec to be resistant to bacteriophages. We cancelled claim 13 to moot this rejection.

5.4. The rejection of claim 14 is also moot, that claim is cancelled.

6. Enablement/Deposit

We confirm that the deposits were made under the Budapest Treaty and enclose copies of the receipts. We hereby aver that all restrictions upon public access to the deposit will be irrevocably removed upon the grant of a patent on this application and that the deposit will be replaced as required by U.S. law if viable samples cannot be dispensed by the depository.

7. Definiteness

We amended claims 4, 6, and 7 by reciting "where the organism has a survival rate which is…" instead of "wherein the characteristic is…".

Respectfully submitted,

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Enclosures
-Deposit Receipts (3)

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